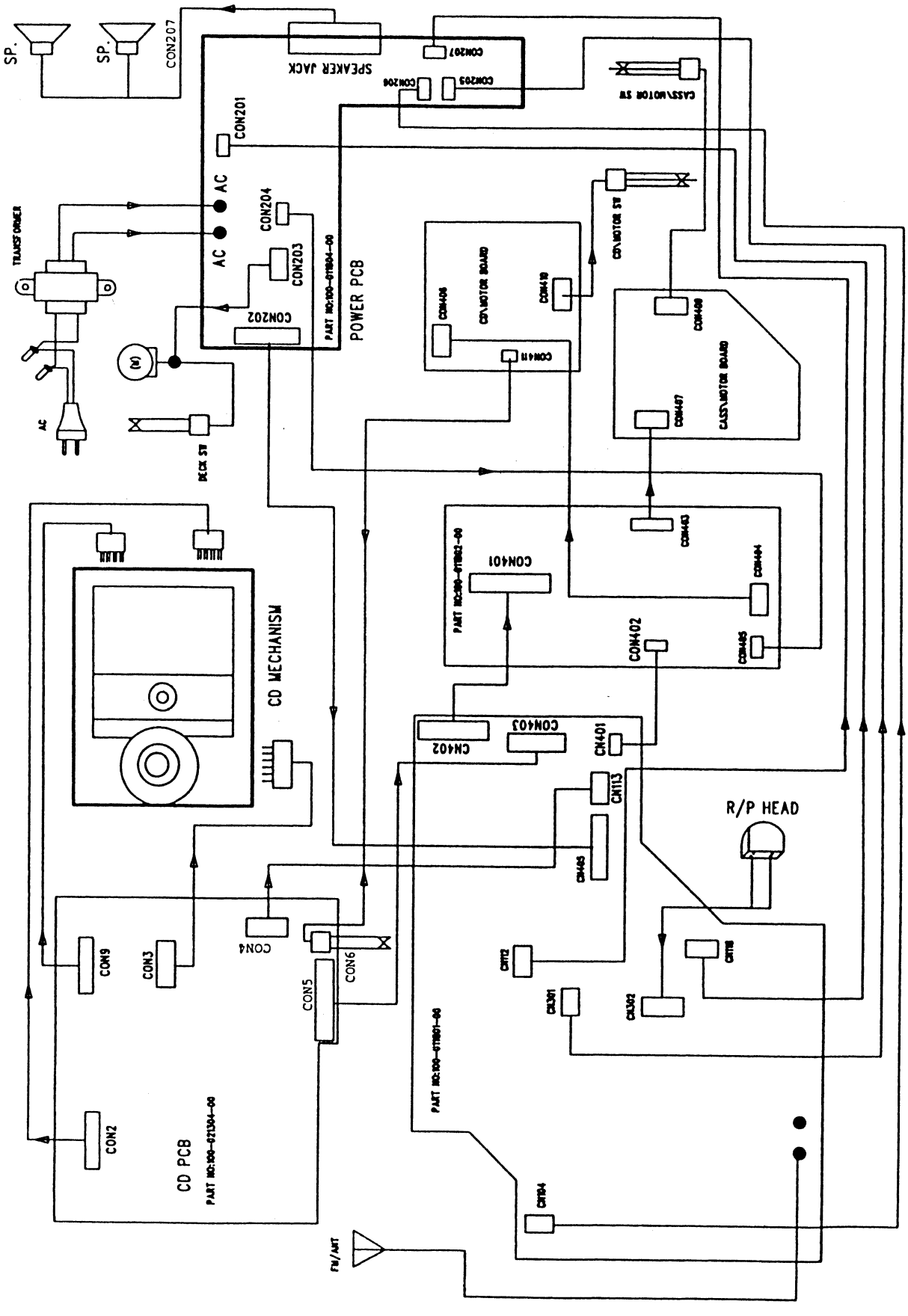
SCHNEIDER SWH-350

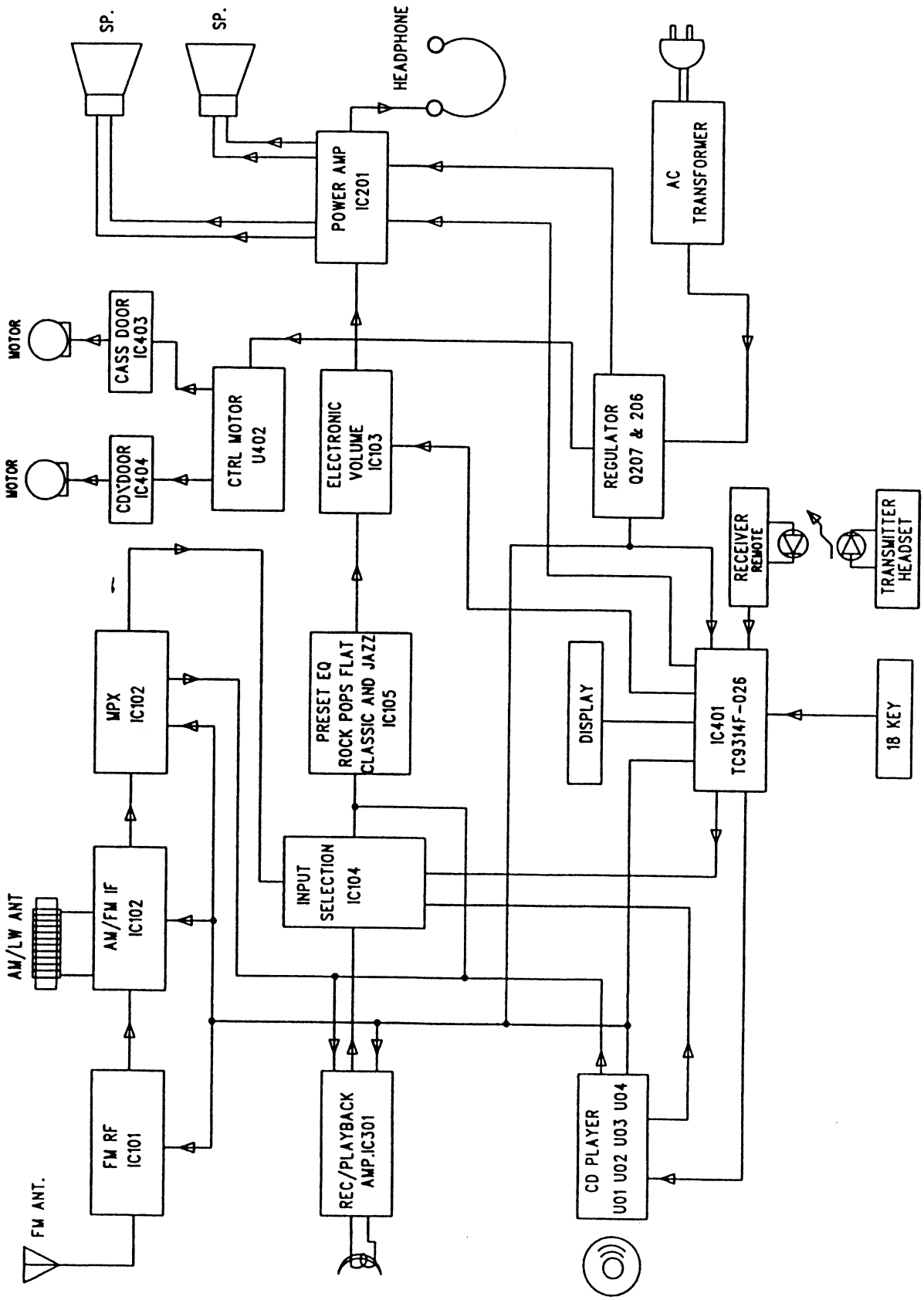
MODEL

SERVICE MANUAL

Verdrahtungsplan
Wiring diagram

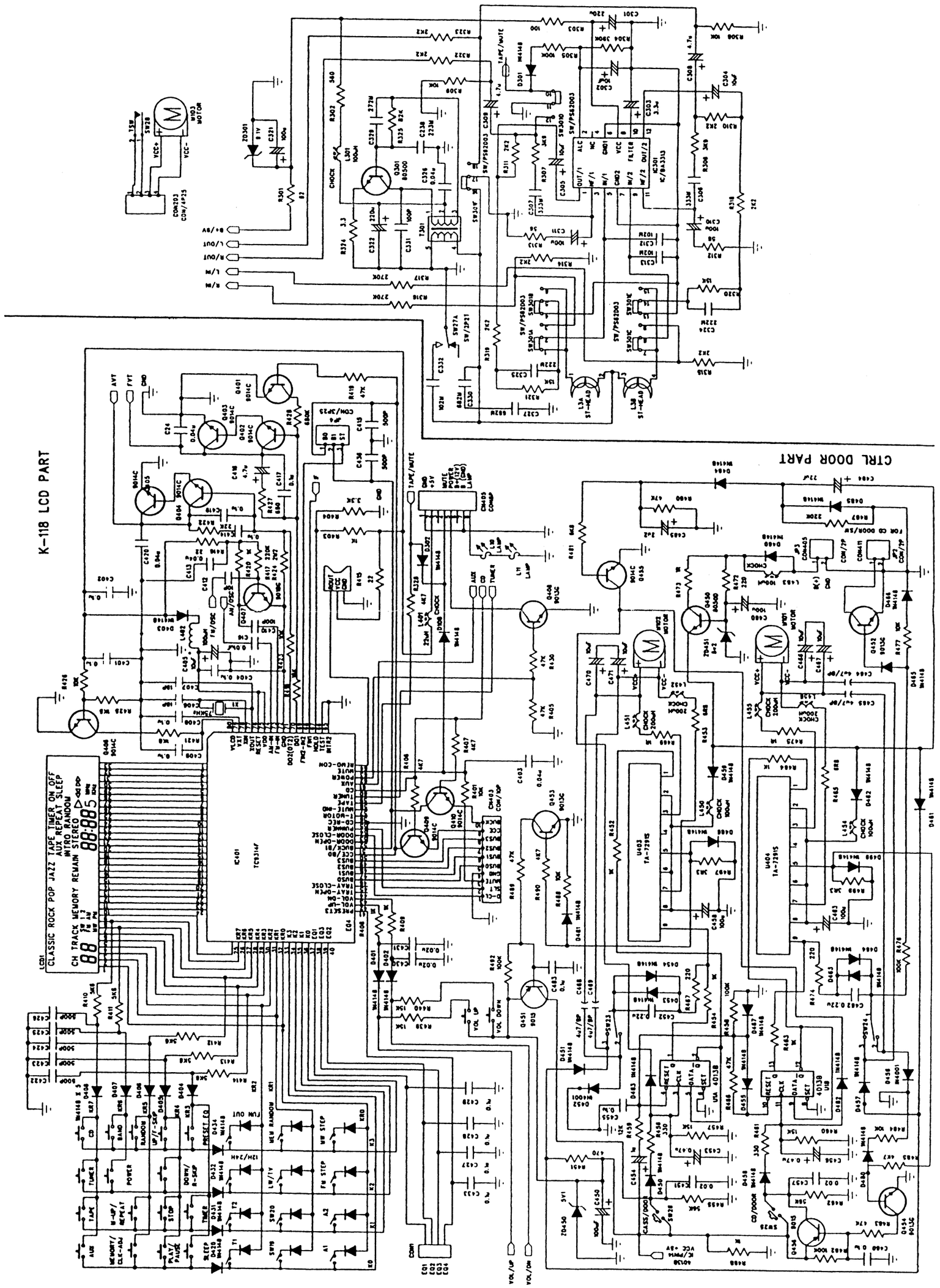


Blockschaltbild
Block diagram

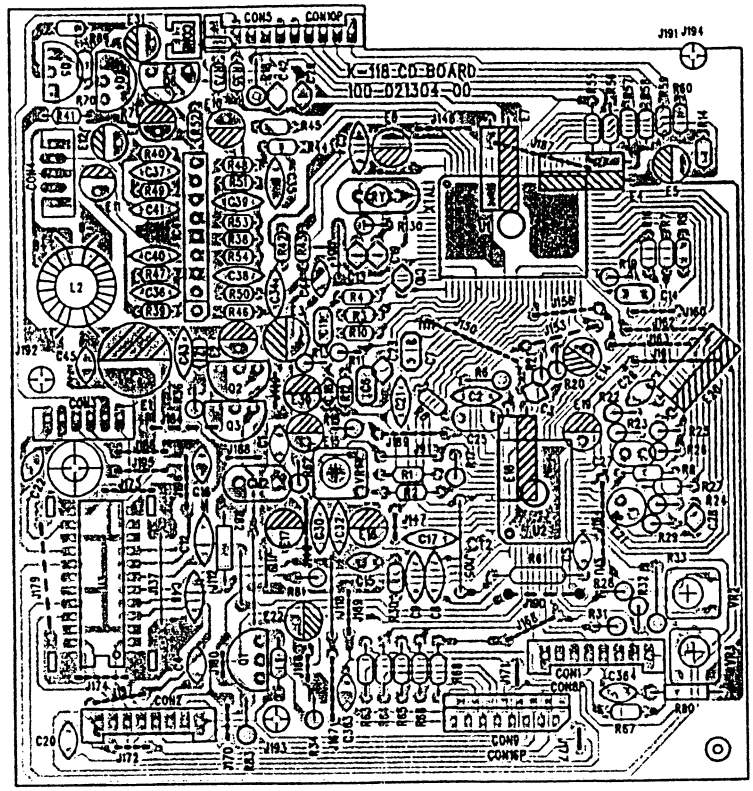


Schaltbild Bedienteil/Display/Cassette

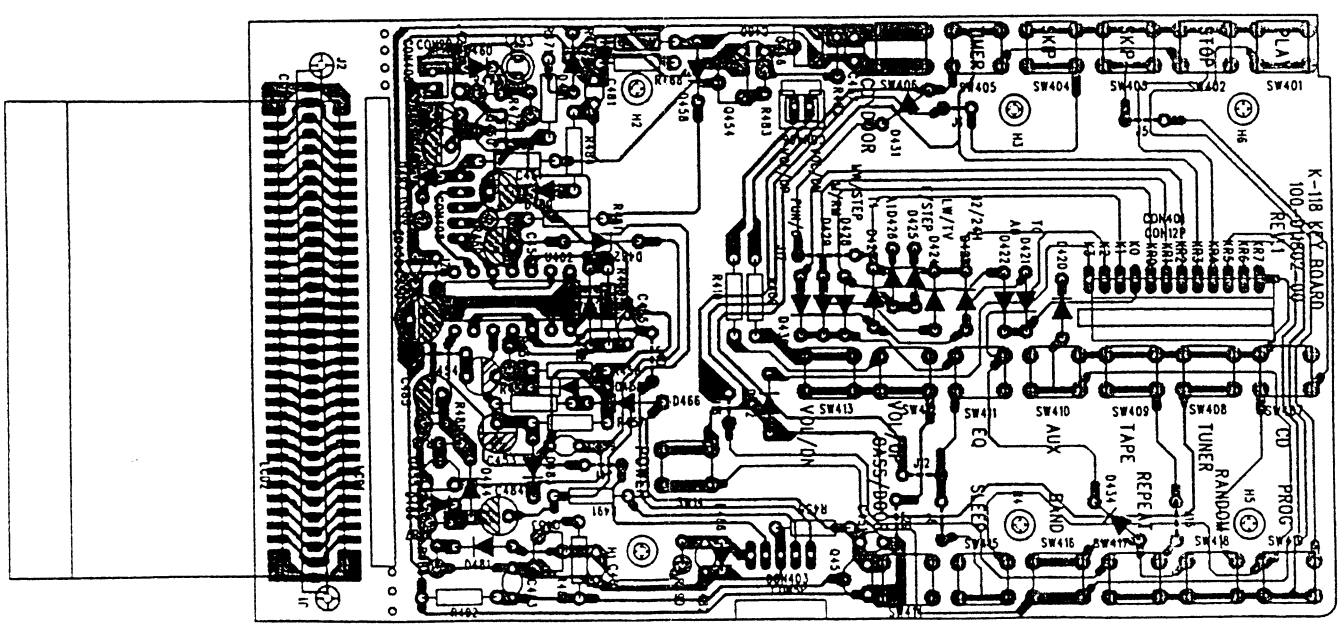
Schematic diagram key control/display/cassette



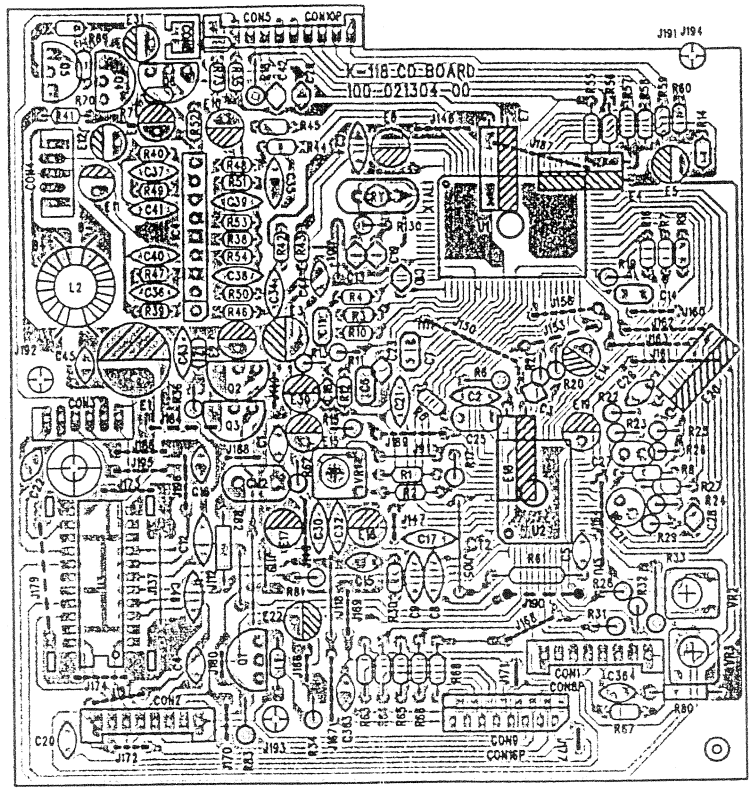
Platinendarstellung CD
P.C.B. diagram CD



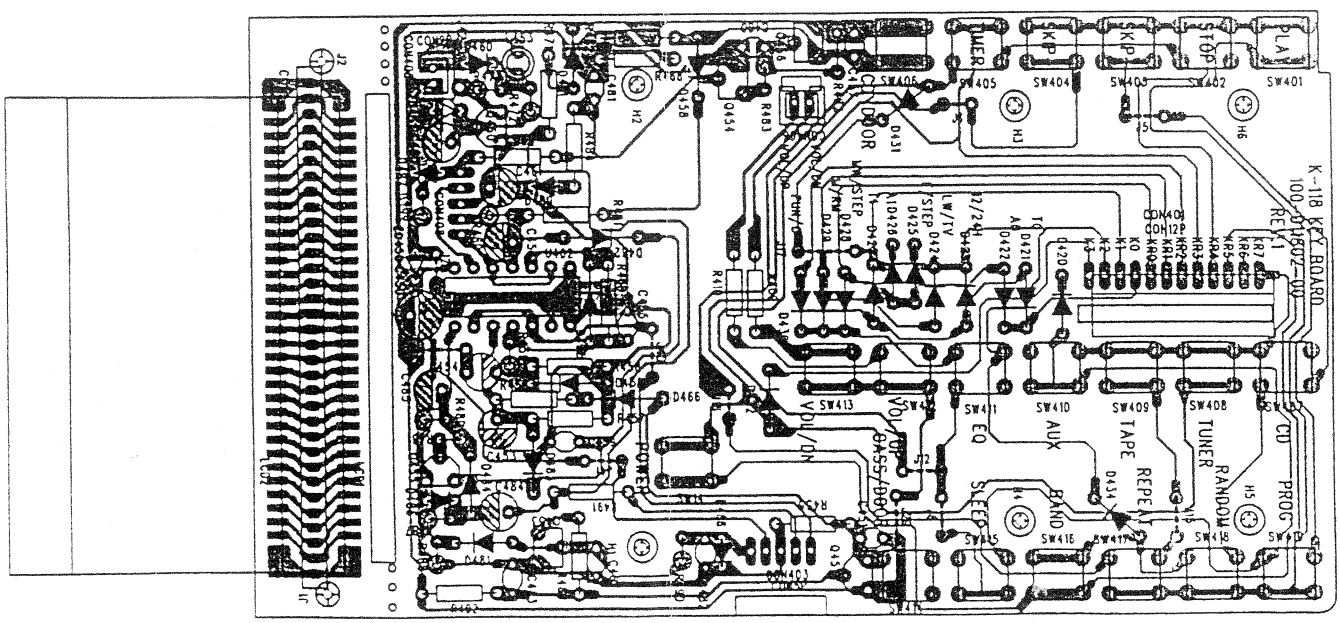
Platinendarstellung Bedienteil/Display
P.C.B. diagram key control



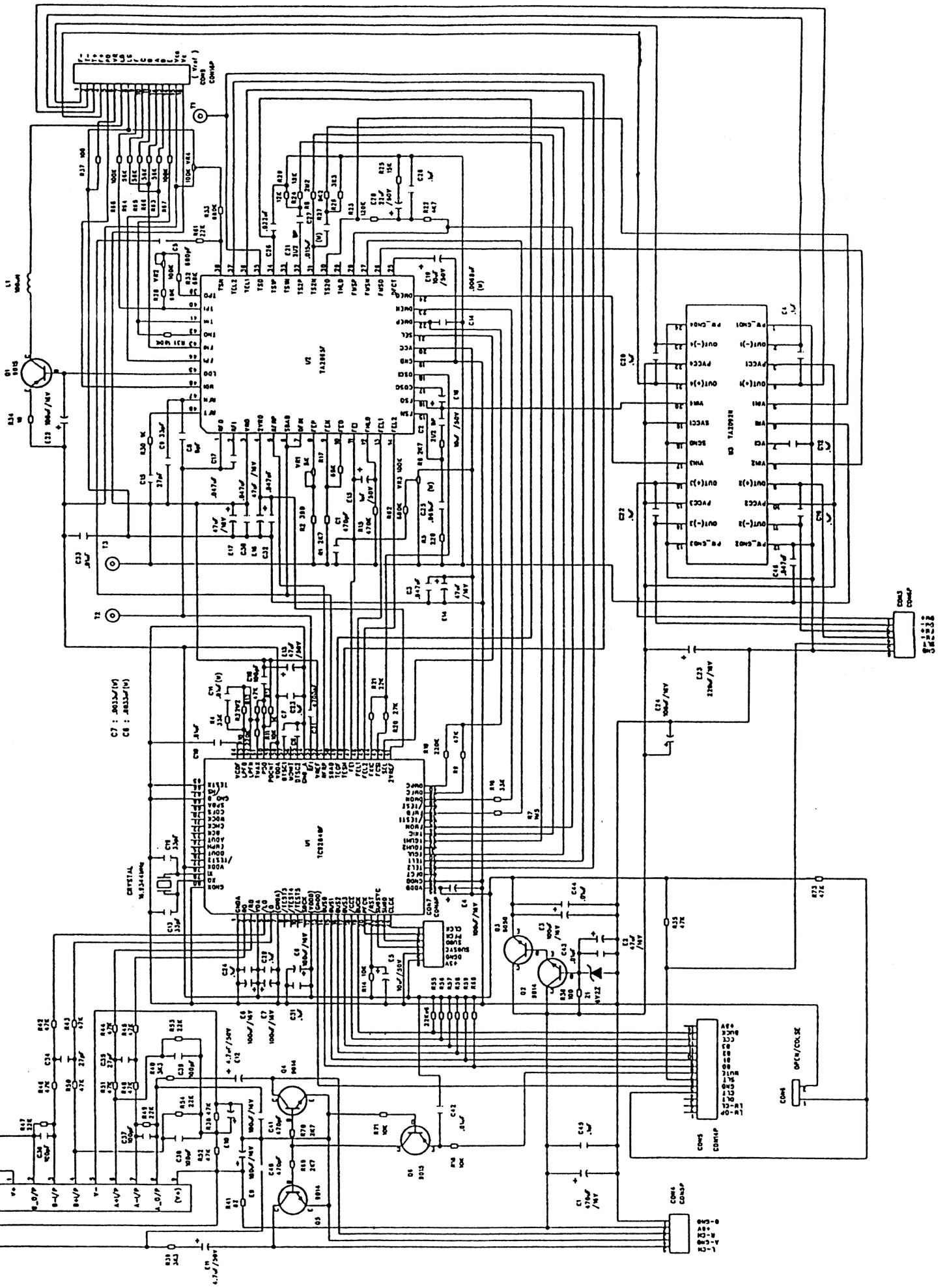
Platinendarstellung CD
P.C.B. diagram CD



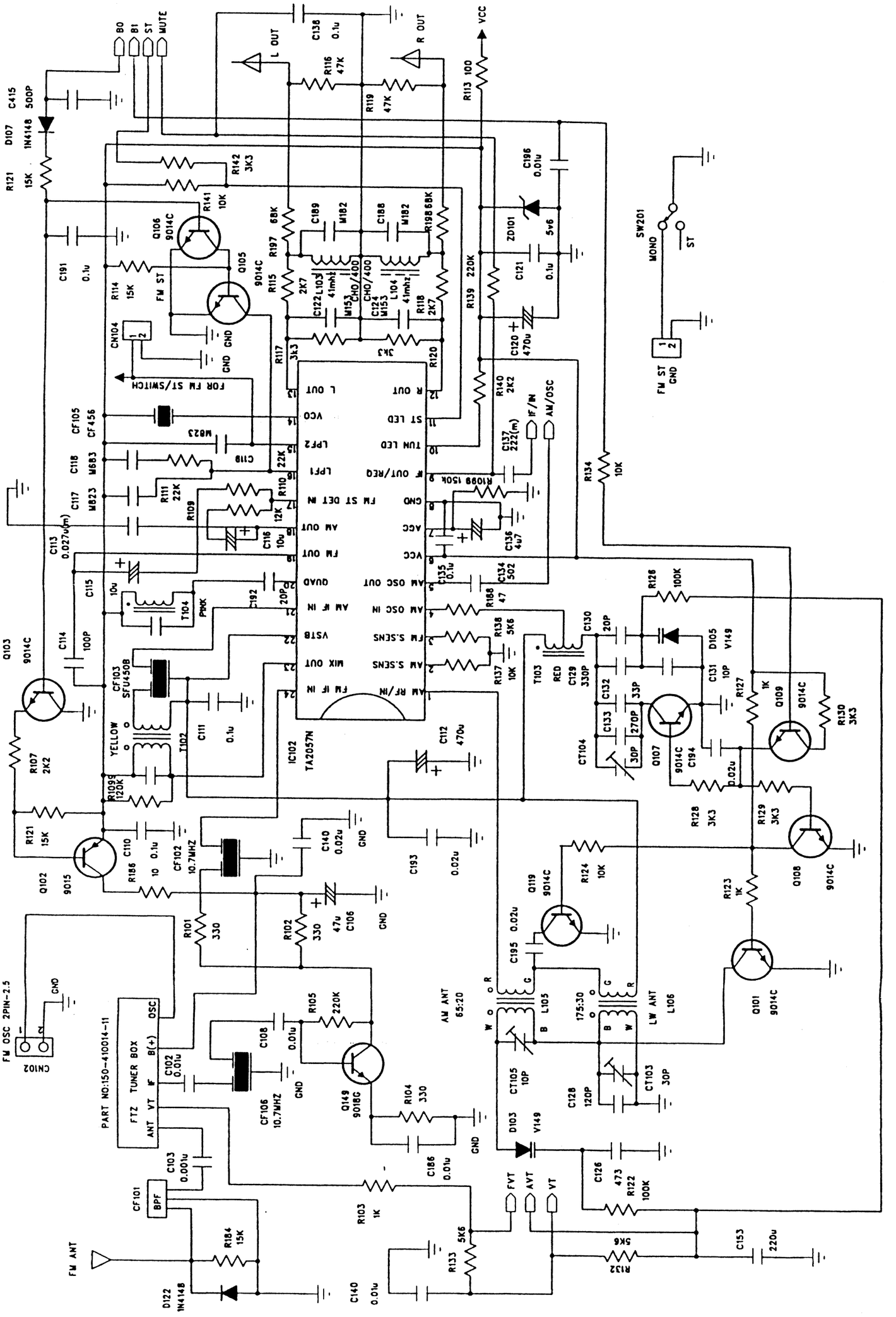
Platinendarstellung Bedienteil/Display
P.C.B. diagram key control

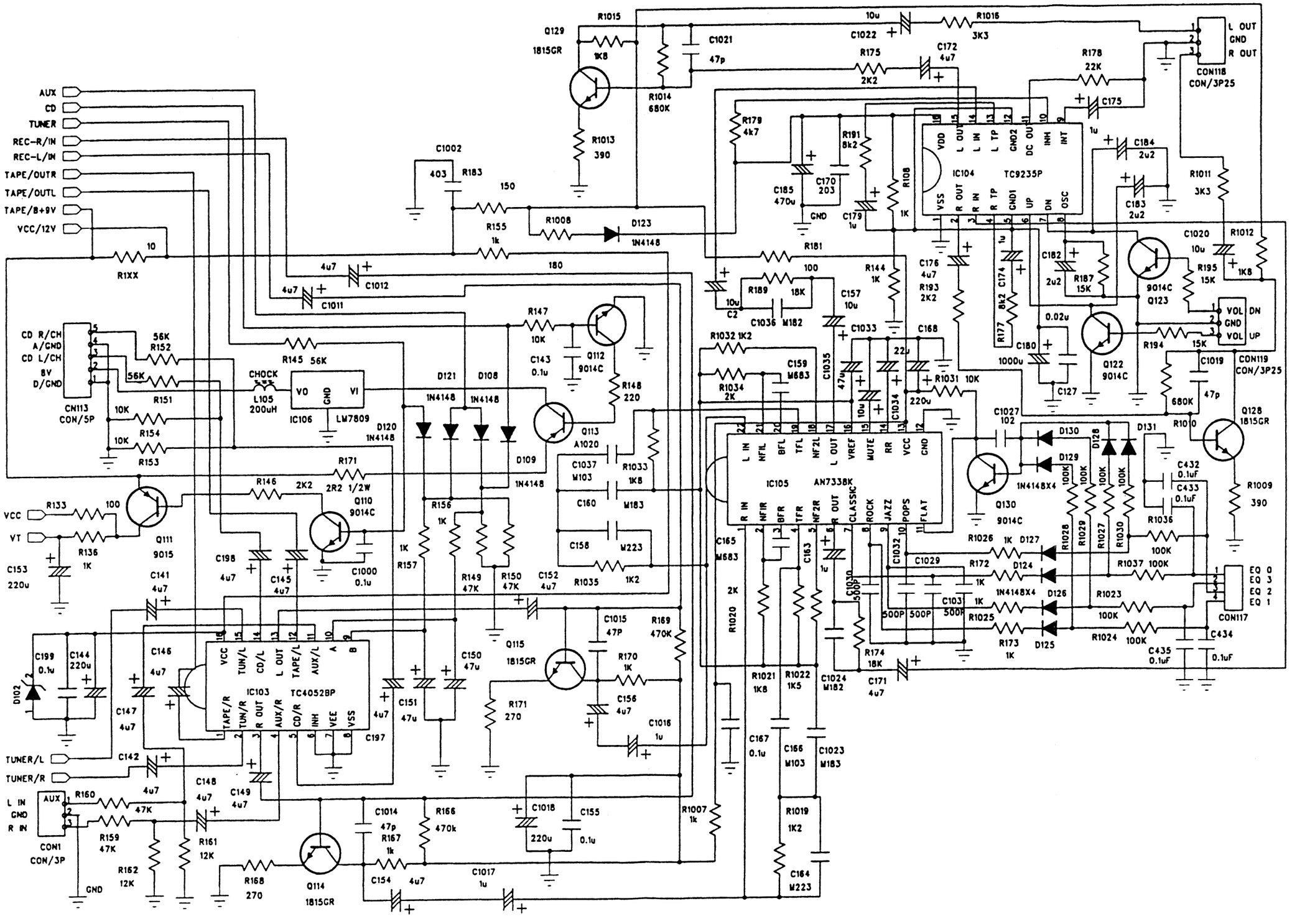


Schaltbild CD
Schematic diagram CD

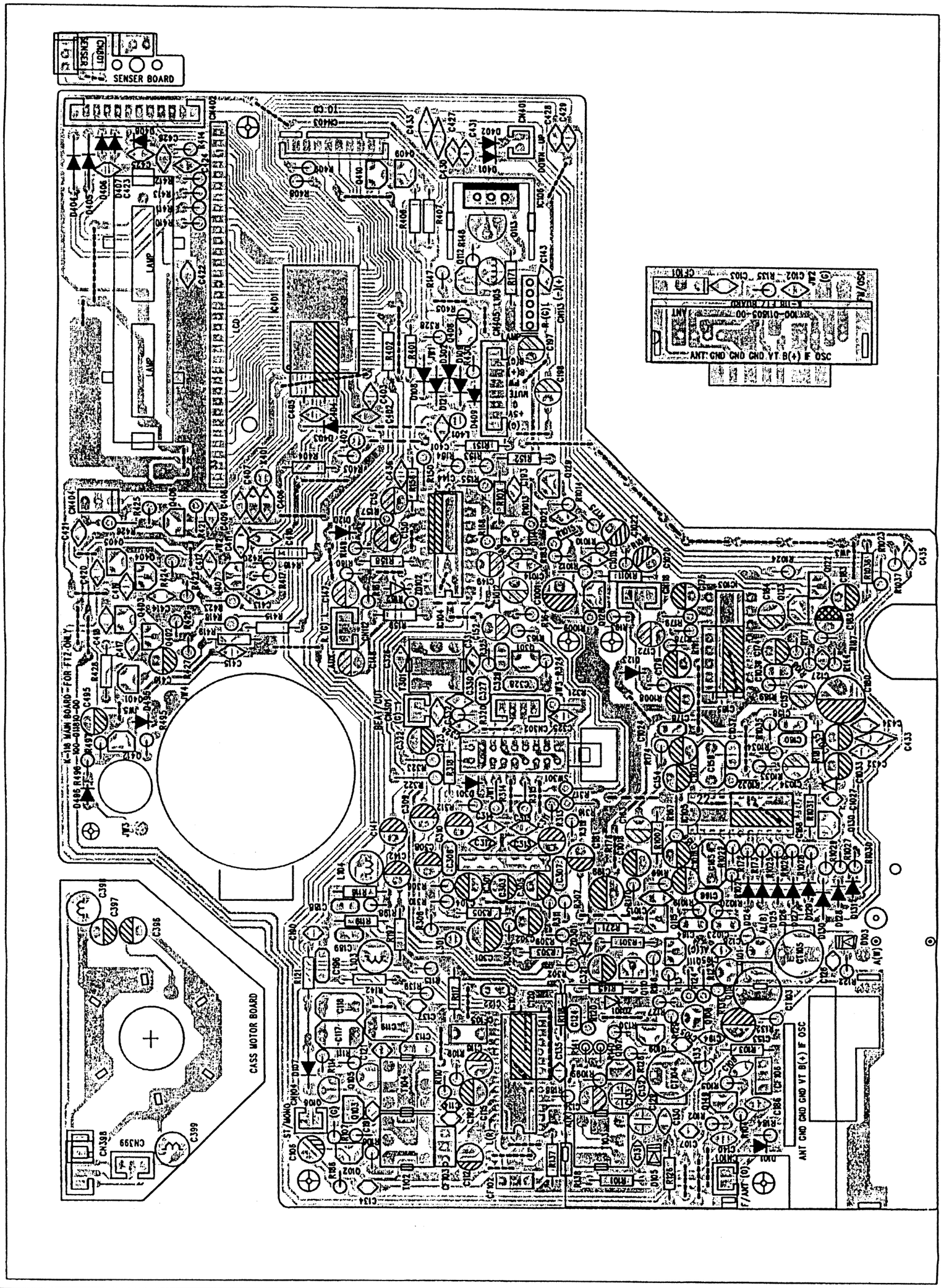


Schaltbild Hauptplatine
Schematic diagram main

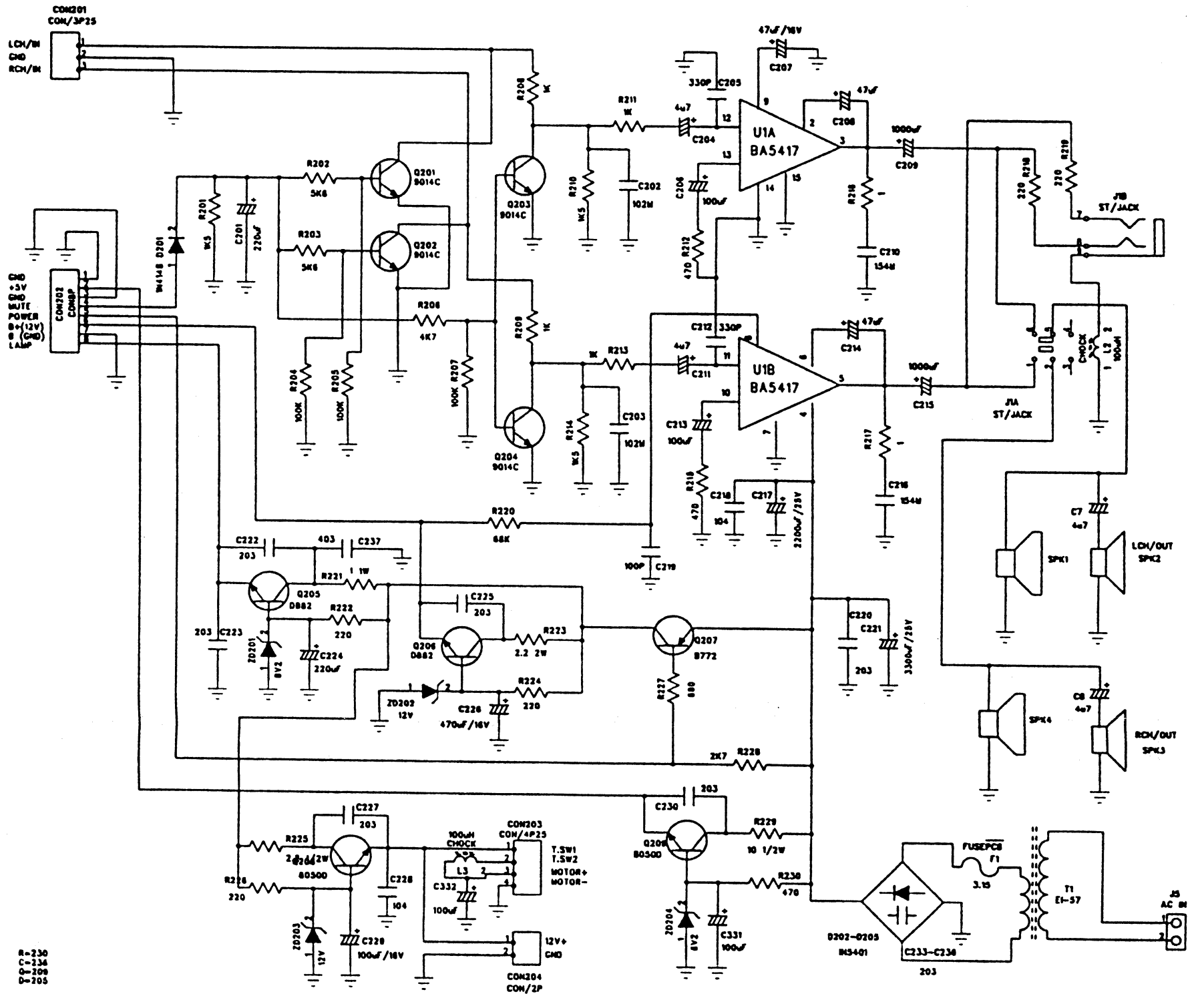



AUX
CD
TUNER
REC-R/IN
REC-L/IN
TAPE/OUTR
TAPE/OUTL
TAPE/B+9V
VCC/12V
R1XX
10
CD R/CH
A/GND
CD L/CH
8V
D/GND
CN113
CON/5P
56K
R152
56K
R151
10K
R154
10K
R153
CHOCK
L105
200uH
IC106
LM7809
VO
GND
VI
D120
1N4148
D121
1N4148
D108
1N4148
D109
1N4148
R145 56K
4u7
C1012
4u7
C1011
R147
10K
C143
0.1u
Q112
9014C
R148
220
Q113
A1020
R171
2R2 1/2W
R146
2K2
Q110
9014C
C1037
M103
C160
C158
M223
R1033
1K8
R1035
1K2
R156
1K
R157
1K
R149
47K
R150
47K
C152
4u7
C1000
0.1u
C198
4u7
C145
4u7
R133
100
VCC
VT
R136
1K
Q111
9015
C153
220u
C141
4u7
C1002
403
R183
150
R155
1k
R1008
D123
1N4148
180
R1015
1K8
Q129
1815GR
C1021
47p
R1014
680K
R1013
390
10u
C1022
R1016
3K3
R175
2K2
C172
4u7
R178
22K
C175
1u
L OUT
GND
R OUT
CON118
CON/3P25
R178
4k7
R191
8k2
C185
470u
C170
203
GND
C179
1u
R108
1K
IC104
TC9235P
VDD
L OUT
L IN
L TP
GND2
DC OUT
INH
INT
VSS
R OUT
R IN
R TP
GND1
UP
DN
OSC
C184
2u2
C183
2u2
R1011
3K3
R181
100
R189
18K
C2
10u
C1036
M182
C157
10u
R144
1K
C176
4u7
R193
2K2
C1020
10u
R1012
1K8
C182
2u2
R187
15K
C174
1u
R177
8k2
9014C
Q123
R195
15K
VOL DN
GND
VOL UP
0.02u
C180
1000u
C127
Q122
9014C
R194
15K
C1019
680K
47p
CON119
CON/3P25
R1032 1K2
R1034
2K
C159
M683
C1035
47u
C1033
10u
C1034
22u
C168
220u
R1031 10K
C1027
102
Q130
9014C
D130
D129
1N4148X4
D128
D131
100K
100K
100K
100K
C432
0.1uF
C433
0.1uF
R1036
100K
R1010
Q128
1815GR
R1009
390
R1026 1K
D127
R1028
R1029
R1027
R1030
R1037 100K
R1023
100K
R1024
100K
C434
C435
0.1uF
0.1uF
CON117
EQ 0
EQ 3
EQ 2
EQ 1
R172
1K
D124
1N4148X4
D126
R1025
1K
R173
1K
D125
C1029
C1032
C1030
500P
500P
C1031
500P
C103
500P
R174
18K
C171
4u7
IC105
AN7338K
L IN
NFIL
BFL
TFL
NF2L
L OUT
VREF
MUTE
RR
VCC
GND
R IN
NFIR
BFR
TFR
NF2R
R OUT
CLASSIC
ROCK
JAZZ
POPS
FLAT
C165
M683
2K
R1020
C163
1u
R1021
1K8
R1022
1K5
C1024
M182
C167
0.1u
C166
M103
C1023
M183
R1019
1K2
C164
M223
R1007
1k
C1015
47P
R169
470K
R170
1K
C156
4u7
C1016
1u
Q115
1815GR
R171
270
C150
47u
C151
47u
4u7
C197
IC103
TC4052BP
VCC
TUN/L
CD/L
L OUT
TAPE/L
AUX/L
TAPE/R
TUN/R
R OUT
AUX/R
CD/R
INH
VEE
VSS
A
B
D102
C199
0.1u
C144
220u
C146
4u7
C147
4u7
TUNER/L
TUNER/R
C142
4u7
C148
4u7
C149
4u7
L IN
GND
R IN
AUX
CON1
CON/3P
R160
47K
R159
47K
R162
12K
R161
12K
GND
R168
270
Q114
1815GR
C1014
47p
R167
1k
R166
470k
C154
4u7
C1017
1u
C1018
220u
C155
0.1u

Platinendarstellung Hauptplatine
P.C.B. diagram main



Schaltbild Netzteil
Schematic diagram power



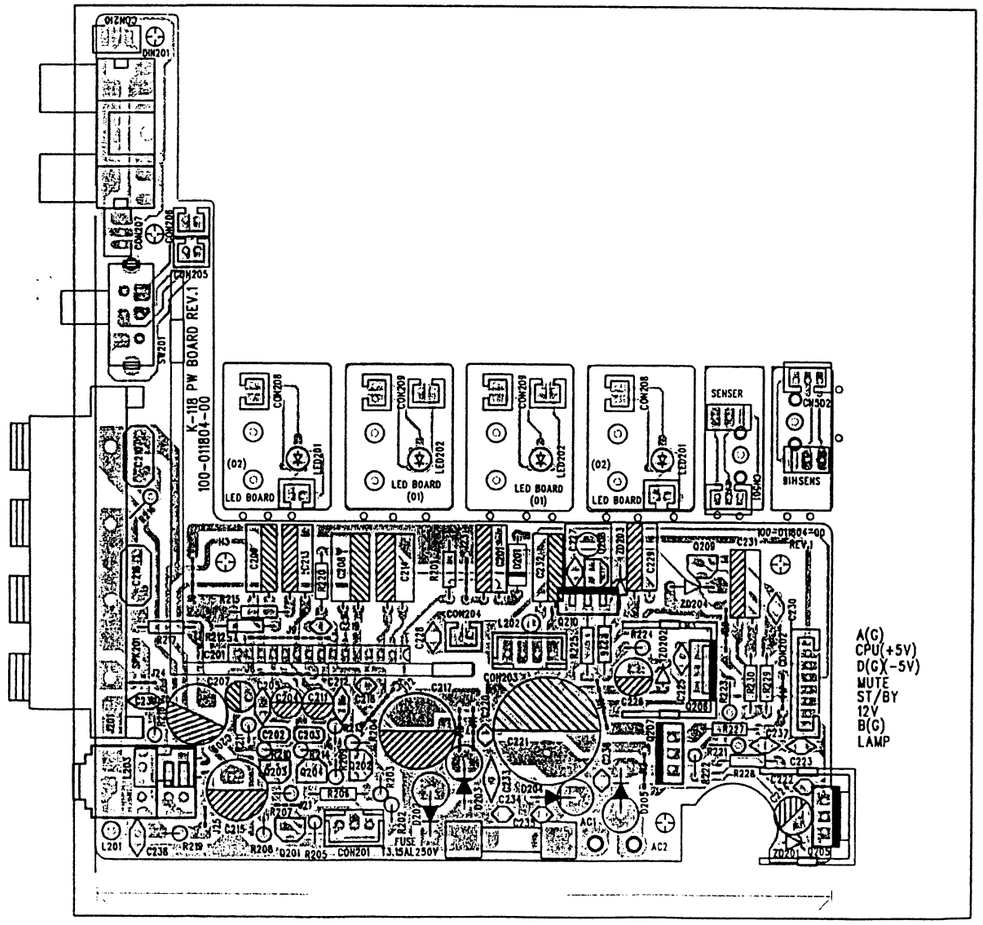
Ersatzteilliste elektrisch
Spare parts list elecrtical

Best.-Nr. Part No.	Bezeichnung	Description	Pos.	Preisgruppe Price-key
01 067 76	Casettenmechanik THL-21SDH-1362K	Cass mechanism	87	D0
01 067 77	CD-Mechanik TCP-11SM2	CD mechanism TCP-11SM2	88	E4
01 067 78	Dämpfungsgummi grün (hart)	CD rubber cushion	36	A2
01 067 79	Dämpfungsgummi rot (weich)	CD rubber cushion	37	A2
01 067 80	Kabel 8-pol. Laser (rot)	16 pin ass'y		A2
01 067 81	Kabel 8-pol. Laser (weiß)	16 pin ass'y		A2
01 067 82	Hauptplatine kpl.	Tuner PCB K-118 ass'y	82	E7
01 067 83	Netzteilplatine kpl.	Power PCB K-118 ass'y	86	C6
01 067 84	Bedienteilplatine kpl.	Key control PCB K-118 ass'y	77	B5
01 067 85	CD-Platine kpl.	CD part K-118 ass'y	85	D5
01 043 12	IC TC 9284 BF	IC TC 9284 BF	U1	D2
01 048 49	IC TA 2065 F	IC TA 2065 F	U2	C1
01 048 50	IC TA 2092 N	IC TA 2092 N	U3	B7
01 043 42	IC BA 4558 N	IC BA 4558 N	U4	A5
01 049 16	IC TA 2057 N	IC TA 2057 N	IC 102	B1
01 043 06	IC TC 4052 BP	IC TC 4052 BP	IC 103	A5
01 062 82	IC TC 9235 P	IC TC 9235 P	IC 104	A8
01 067 86	IC AN 7338 K	IC AN 7338 K	IC 105	B5
00 370 30	IC LM 7809	IC LM 7809	IC 106	B5
01 049 18	IC BA 5417	IC BA 5417	IC 201	A6
01 031 34	IC BA 3313 L	IC BA 3313 L	IC 301	A5
01 067 87	IC TC 9314 F -026	IC TC 9314 F -026	IC 401	D3
01 043 07	IC TC 4013 BP	IC TC 4013 BP	U 402	A9
00 703 15	IC TA 7291 S	IC TA 7291 S	IC 403,404	B0
01 043 15	Transistor 2 SC 9015 C	Transistor 2 SC 9015 C	Q 1,6	A1
01 043 11	Transistor 2 SC 8050 D	Transistor 2 SC 8050 D	Q 3,209,301	A2
01 043 15	Transistor 2 SC 9015 C	Transistor 2 SC 9015 C	Q 102,111	A1
01 043 16	Transistor 2 SC 9018 G	Transistor 2 SC 9018 G	Q 149,407	A1
00 460 74	Transistor 2 SA 1020	Transistor 2 SA 1020	Q 113	B2
00 129 47	Transistor 2 SC 1815 GR	Transistor 2 SC 1815 GR	Q 114,15,28,29	A6
01 043 17	Transistor 2 SD 882 P	Transistor 2 SD 882 P	Q 205,206	A1
00 577 49	Transistor 2 SB 772	Transistor 2 SB 772	Q 207	A0
01 043 14	Transistor 2 SC 9013 G	Transistor 2 SC 9013 G	Q 408	A1
00 700 94	Transistor 2 SC 9014 C	Transistor 2 SC 9014 C	div.	A7
00 511 01	Zenerdiode 6,2V 500 mW	Zener diode 6,2V 500mW	Z1, ZD201	A1
00 112 41	Diode 1 N 4148	Diode 1 N 4148	div.	A0
01 043 20	Diode V 149	Diode V 149	D 103,105	A5
00 385 37	Zenerdiode 5,1V 500 mW	Zener diode 5,1V 500mW	ZD 450	A1
00 313 17	Zenerdiode 5,6V 500 mW	Zener diode 5,6V 500mW	ZD 101	A1
00 611 86	Zenerdiode 9,1V 500mW	Zener diode 9,1V 500mW	ZD 301	A1
01 043 21	Diode 1 N 5401	Diode 1 N 5401	D 202-205	A1
00 407 69	Quarz 16,934 MHz	Crystal 16,934 MHz	XTAL 1	B2
00 652 43	Keramik-Filter 450kHz SFU 450 B	Ceramic filter 450kHz SFU 450 B	CF 103	A3
00 652 45	Keramik-Filter 456kHz	Ceramic filter 456 kHz	CF 105	A4
00 652 55	Quarz 75kHz	Crystal 75kHz	X 401	B2
01 044 10	AM Mix Übertrager (gelb)	I.F.T. Am mix (yellow)	T 102	A2
01 044 11	AM Osc Übertrager (rot)	I.F.T. Am osc (red)	T 103	A2
01 044 13	FM Det Übertager (rosa)	I.F.T. Fm det (pink)	T 104	A2
01 044 14	Rec bias Übertrager (schwarz)	Rec bias (black)	T 301	A2
01 044 15	Trimm-Kondensator 10 pF	Trimmer cap 10pF	TC 105	A1

Ersatzteilliste elektrisch
Spare parts list elecrtical

Best.-Nr. Part No.	Bezeichnung	Description	Pos.	Preisgruppe Price-key
01 067 88	Mikroschalter CD-Cass.-Fach	Leaf switch	90	A1
01 047 12	Schiebeschalter Beat Cut	Slide switch	100	A2
01 043 28	Taster	Tact switch	div.	A1
01 067 89	A/W-Schiebeschalter	Push switch	SW 301	A1
01 067 90	Chinch-Buchse 2-fach	RCA Jack	99	A3
01 067 91	Lautsprecherbuchse	Speaker terminal boards	101	A3
00 609 63	Klinkenbuchse 3,5mm	Earphone jack 3,5mm	102	A8
01 067 92	Antennenbuchse	75 Ohm Socket		A4
01 067 93	Lampe Display 9V 100mA	Lamp 16mm 9V 100mA		A0
00 572 29	IC RPM-638 CBR	IC RPM-638 CBR		B0
01 067 94	Tuner KEF-014AV	FM Tuner KEF-014AV		D2
01 067 95	LCD-Display	LCD-Display		C3
01 067 96	Trafo EI-57 230V	Transformer EI-57 230V		C9

Platinendarstellung Netzteil
P.C.B. diagram power



Abgleichanweisung Tuner
Adjustment procedure tuner

AM IF

Circuit Alignment	Equipment Connection	Steps	Gen. Freq.	Dial Setting	Adjustments
IF	AM Signal generator with loop antenna; input to IC 102 PIN 18	1	450 kHz (1 kHz Mod.)	Tuning to highest freq.	T 102 (AM IFT) for maximum output
IF	AM Signal generator with loop antenna; input to IC 102 PIN 18	2			Repeat until no further improvement can be made
BAND	AM signal generator with loop antenna; DC Volt.meter to TP3	1	522 kHz	Tuning to lowest freq.	T103 ajust for max. output. VT Voltage = 1,4V-1,5V
BAND	AM signal generator with loop antenna; DC Volt.meter to TP3	2	1620 kHz	Tuning to highest freq.	Check DC Volt.meter 7,0V
TRACKING	AM signal generator with loop antenna; DC Volt.meter to TP3	1	612 kHz	Tune to signal	MW Ant coil ajust for maximum output
TRACKING	AM signal generator with loop antenna; DC Volt.meter to TP3	2	1404 kHz	Tune to signal	CT105 ajust for maximum output

LW BAND/TRACKING

Circuit Alignment	Equipment Connection	Steps	Gen. Freq.	Dial Setting	Adjustments
BAND	AM signal generator with loop ; DC Volt.meter to TP3	1	146 kHz	Tuning to lowest freq.	Check DC Volt.meter 0,9V-1,3V
BAND	AM signal generator with loop ; DC Volt.meter to TP3	2	281 kHz	Tuning to highest freq.	CT104 adjust for max. output. 9,0V
TRACKING	AM signal generator with loop ; DC Volt.meter to TP3	1	164 kHz	Tune to signal	LW Ant coil adjust for maximum output
TRACKING	AM signal generator with loop ; DC Volt.meter to TP3	2	272 kHz	Tune to signal	CT103 adjust for maximum output

FM IF

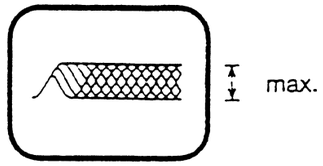
Circuit Alignment	Equipment Connection	Steps	Gen. Freq.	Dial Setting	Adjustments
IF	IF generator through 100pF cap. To TP2; Input to IC 102 PIN 19	1	10,7 MHz	Tuning to lowest freq	T101 for max. Output; T104 for centre of 10,7MHz
IF	IF generator through 100pF cap. To TP2; Input to IC 102 PIN 19	2			Repeat Steps 1
BAND	FM generator to TP1; VTVM to con102 GND; Volt.meter to con102 VTI	1	87,50 MHz	Tuning to lowest freq.	Check DC Volt.meter at 2,6-3,3V
BAND	FM generator to TP1; VTVM to con102 GND; Volt.meter to con102 VTI	2	108,00 MHz	Tuning to highest freq.	Adjust L102 and CT102 for max. output. 8,5V
TRACKING	FM generator to TP1; VTVM to con102 GND; Volt.meter to con102 VTI	1	90,1 MHz	Tune to signal	Adjust L101 for max. Output
TRACKING	FM generator to TP1; VTVM to con102 GND; Volt.meter to con102 VTI	2	106,1 MHz	Tune to signal	Adjust CT 101 for max. Output

Abgleichanweisung CD
Adjustment procedure CD

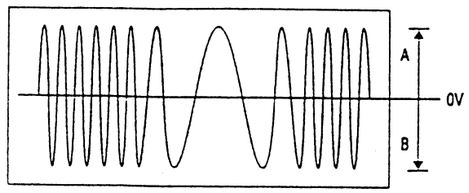
Instruments required:
-Oscilloscope
-Test CD Philips 5A or SonyYEDS 18

Tracking-offset-adjustment
1. CD in Stop mode
2. Set scope at DC mode + to TP3 and - to TP1.
3. Adjust VR 3 to 0V

HF maximum adjustment
1. Select CD function and play any CD.
2. Set scope + to TP2 and - to TP1
3. Adjust VR 1 for maximum output on scope (about 1,2 Vpp with Philips 5A and 1,1 Vpp with Sony YEDS 18)



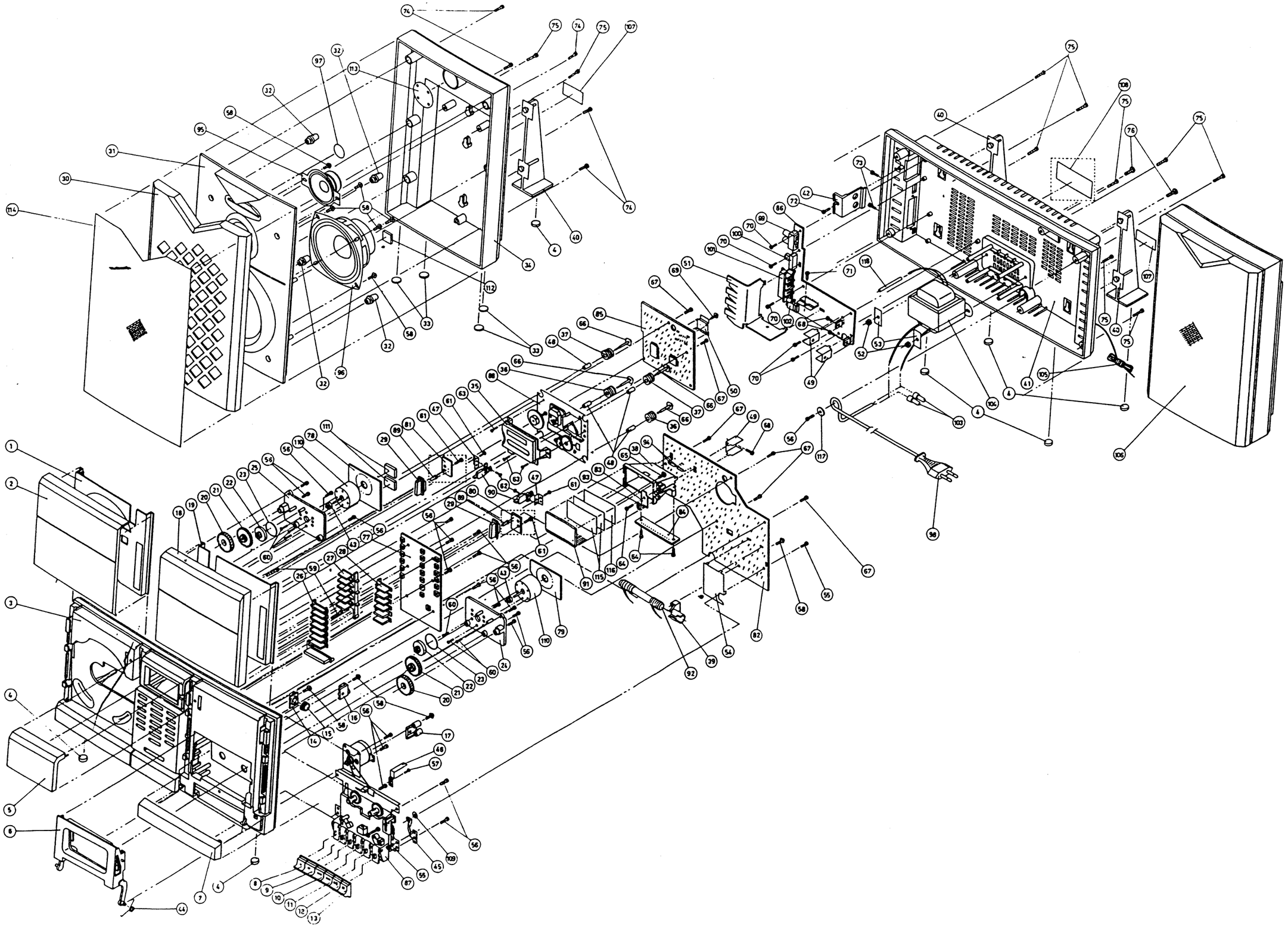
EF balance adjustment
1. Play any CD.
2. Set scope + to TP3 and - to TP1
   Note: set scope at DC mode
3. While FF or SEARCH is depressed.
   Adjust VR 2 to make A=B as illustrated.



Abgleichanweisung Cassette
Adjustment procedure tape

Description	Setting Condition	Equipment Connection	Test Tape	Adjustments	Remark
Head azimuth adjustment for Tape	Playback	VTVM and scope connected to SPEAKER OUT	MTT-113 (8kHZ)	Head azimuth control screw	Adjustment for maximum reading on VTVM

Explosionsdarstellung
Exploded view



Ersatzteilliste Gehäuse
Spare parts list housing

Best.-Nr. Part No.	Bezeichnung	Description	Pos.	Preisgruppe Price-key
01 067 46	Faltkarton SWH 350	Carton box		B3
01 067 47	Styroporverpackung oben	Polyfoam end cap top		A7
01 067 48	Styroporverpackung unten	Polyfoam end cap bottom		A7
01 067 98	Serviceanweisung SWH 350	Service manual SWH 350		
01 064 35	Bedienungsanleitung SWH 350	Instruction book SWH 350	Beipack	B9
01 067 49	Fernbedienungsgeber RC164	Remote part ass'y		C2
00 416 50	Micro-Batterie 1,5 V	Battery 1,5 V	Beipack 2x	A2
00 133 30	FM-Antenne	Throw antenna	Beipack	A4
01 067 50	Frontblende SWH 350	Front cabinet	3	C0
01 067 51	Gehäuse SWH 350	Back cabinet	41	B9
01 067 52	Stützfuß	Stand	40	A4
01 067 53	Klappe Bedientasten Cassette	Cass knob door	7	A2
01 043 69	Gummifuß Gehäuse	Rubber foot	4	A0
01 067 54	Cassettenfach-Klappe	Cass tape bracket	6	A3
01 067 55	Abdeckung Cassettenfach	Cass door bracket	19	A4
01 067 56	Fenster Cassettenfach	Cass door	18	A9
01 067 57	Feder Cassettenfach Klappe	Cass door spring	44	A0
01 042 82	Halter Dämpfrad	Gear holder	14	A1
01 042 81	Dämpfrad Cassettenfach-Klappe	Damper gear	15	A1
01 067 58	Abdeckung CD-Fach	CD door bracket	1	A4
01 067 59	Fenster CD-Fach	CD door	2	A9
01 046 89	Abdeckung Laser	CD lens cover	35	A2
01 067 60	Zahnrad vorn CD-Cass.-Fach	Gear	20	A0
01 067 61	Zahnrad hinten CD-Cass.-Fach	Transfer gear	21	A0
01 067 62	Riemenscheibe CD-Cass.-Fach	Pulley gear	22	A0
01 067 63	Riemen CD-Cass.-Fach	Rubber belt	23	A0
01 067 64	Motor MMN6FILBOK	Motor	110	B8
01 067 65	Pulley Motor	Pulley	43	A0
01 067 66	Fenster Display	LCD Display lens	5	A7
01 067 67	Klaviertaste Cass. Record	Cass knob "record"	8	A0
01 067 68	Klaviertaste Cass. Play	Cass knob "play"	9	A0
01 067 69	Klaviertaste Cass. Rew	Cass knob "rew"	10	A0
01 067 70	Klaviertaste Cass. FF	Cass knob "ff"	11	A0
01 067 71	Klaviertaste Cass. Stop/Eject	Cass knob "stop/eject"	12	A0
01 067 72	Klaviertaste Cass. Pause	Cass knob "pause"	13	A0
01 067 73	Tastensatz (L) CD, Tuning, Timer	Funktion knob (L)	27	A3
01 067 74	Tastensatz (M) Funk., Vol., Power	Funktion knob (M)	26	A3
01 067 75	Tastensatz (R) Random, Repeat, Band	Funktion knob (R)	28	A3
00 763 38	Lautsprecherbox kpl.	Speaker box ass'y		B0
01 067 97	Front Lautsprecher	Speaker frame ass'y		A2

WICHTIGER HINWEIS/IMPORTANT NOTE

Der integrierte CD-Spieler arbeitet mit unsichtbarem Laserlicht.
Nicht in den Strahl blicken und sich nicht dem Strahl aussetzen!
Vorsicht, Laserstrahlung im Inneren des Gerätes!
Zur Vermeidung von Strahlungsschäden darf das Gehäuse nur von qualifiziertem Fachpersonal geöffnet werden.
Informationsetikett auf der Geräterückseite (siehe Bild).

The integrated CD-Player works with invisible laser-light.
Do not look into this beam and don't abandon yourself to radiation.
Attention, laser-radiation also inside of the unit!
To avoid damages of radiation unit should be opened only by qualified service personnel.
Information label on the rear of unit (see picture).

VAROITUS!
Suojakoteloa ei saa avata. Laite sisältää laserdiodin, joda lähettää näkymäntöntä silmille vaarallista lasersäteilyä.

VARO!
Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Älä katso säteeseen.

LASER KLASSE 1

Laser $\lambda = 780$ nm, $P_{max} = 0{,}5$ mW

CLASS 1 LASER PRODUCT

Laser $\lambda = 780$ nm, $P_{max} = 0{,}5$ mW

LUOKAN 1 LASERLAITE

KLASS 1 LASER APPARAT

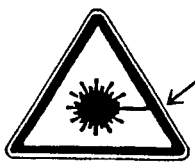
Warnetikett in dem Plattenfach (siehe Bild).

Warning label in record-drawer (see picture).

UNSICHTBARE LASERSTRAHLUNG NICHT DEM STRAHL AUSSETZEN LASER KLASSE 3 B

CAUTION
INVISIBLE LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM.

ADVARSAL:
Usynlig laserstråling ve åbning når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.



Austrittsöffnung für Laserstrahlung
Discharge orifice for Laser radiation

Hinweis für Original-Etikett:
Schrift und Umrandung schwarz, Untergrund gelb.

Indication for original label:
Letters and surrounding black, background yellow.

Bitte bei Ersatzteilbestellung die genaue Bezeichnung und **Ident-Nr. (siehe Typenschild)** des Gerätes sowie Bestell-Nummer und Positions-Nummer des Ersatzteils angeben.

For ordering of spare parts please state exact description and **ident.-no. of unit (see silver rating label on the backside of unit)** as well as part no. and position no. of required spare parts.

Benutzen Sie:

Telefax: 08245/51326

oder

ersatzteile@schneider-ag.de

Der Umwelt zuliebe!

Diese Serviceanweisung wurde auf chlorfrei gebleichtem Papier gedruckt.

Working for the environment!

This service manual is printed on paper whitened without chlorine.

Technische Änderungen vorbehalten.
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